

Junior Scientists Tandems

Final Report

Name of student: NYAABA Dominic Adugbire

German Research Institution: University of Passau

Supervisor at German Research Institution: Prof. Dr Martina Padmanabhan

National University (Country) (if applicable) University for Development Studies, Tamale-Ghana

Supervisor at National University: Dr Isaac Kwadwo Ansah

International Agricultural Research Center (incl. Country): International Institute for Tropical Agriculture (IITA)

Supervisor at International Agricultural Research Center: Dr Bekele Kotu

Start and end date of career exploration stay: 03.07.2025 – 30.11.2025

Title: Integrating Gender Perspectives in the Adoption of Sustainable Intensification Practices in Northern Ghana

Funded by the German Federal Ministry for Economic Cooperation and Development (BMZ)



1. INTRODUCTION

This report details my research stay at the University of Passau, Germany from July 3rd to November 30th, 2025. This five-month research internship, sponsored by the ATSAF Career Exploration Scholarship, offered me an excellent opportunity to advance my Master's thesis on gender perspectives in sustainable agricultural practices in Northern Ghana, through the exceptional academic environment and interdisciplinary expertise at the Chair of Critical Development Studies.

2. THE INTERNSHIP AND RESEARCH ENVIRONMENT

The University of Passau provided a very conducive environment for focused academic research and thesis development. Comprehensive library resources and specialized literature on relevant themes substantially improved the quality of the study that could be conducted.

The quiet and well-equipped research spaces allowed for periods of undisturbed concentration, thus enabling me to make real progress in my study. The university environment, with modern infrastructure, continuous, uninterrupted internet access, and spaces for group work, was ideal for conducting independent research and sharing academic findings. The stimulating intellectual atmosphere of the Chair of Critical Development Studies, expressed in regular seminars, weekly research lab, and informal academic discussions, greatly enriched my understanding of current development challenges and methodological approaches in agricultural research.

The research stay was clearly structured, with a defined set of objectives and regular supervision from the University for Development Studies, International Institute of Tropical Agriculture (IITA), and University of Passau, which created the framework necessary for productivity while allowing flexibility to explore emerging research questions and refinement of my analytical approach.



3. IITA'S ADMINISTRATIVE AND LOGISTICAL SUPPORT

The International Institute of Tropical Agriculture facilitated this research stay to a large extent. The administrative support from IITA through Dr. Kotu Bekele was exceptionally helpful and started well before I traveled from Ghana. The letter of appointment from IITA was the basic document for the successful application for an ATSAF scholarship, showing a very strong institutional partnership between IITA, German universities, and African research institutions.

As a first-time international traveler, I immensely benefited from IITA's comprehensive guidance throughout the entire process. The support ranged from assisting in the initial stages of travel document preparation, including visa application procedures, to practical advice upon arrival and settlement in Germany. My IITA supervisor, Dr. Kotu Bekele, responded to my numerous inquiries promptly and willingly gave me detailed guidance on both academic and logistical matters, epitomizing IITA's commitment to supporting young African researchers in international academic exchanges.

Everything fitted perfectly: IITA and the University of Passau managed all administrative requirements efficiently so that I could concentrate on research activities instead of bureaucratic procedures. This support network thus proved quite helpful in understanding the complexities of international research collaboration and overall contributed more significantly to the success of the research stay.

4. UNIVERSITY OF PASSAU: A FAMILY AWAY FROM HOME

The position of the Chair for Critical Development Studies at the University of Passau broke beyond the typical hosting-guest paradigm with an evident warmth of familial ties and scholarly camaraderie. Since my initial interactions with the faculty at the University of Passau, while back in Ghana, there had been humility and hospitality beyond words that significantly defined my experience at Passau. The early support, especially the interventions made during my visa application, before any sort of formal tie was made, is a reflection of the value that is placed on the University's inclusivity and international collaboration. In Passau, the warm reception and integration into the academic community reflected not a visitor but a valued member of the research family.



First, the University Welcome Center for their efficient handling of student orientation, residence registration, and furnishing of necessary information on living in Passau made the stay comfortable. They made my entry into a foreign academic and cultural setting a smooth experience.

Again, under the distinguished leadership of Prof. Dr. Martina Padmanabhan, a culture of intellectual flexibility and respect was encouraged. In my case, the valuable knowledge and friendly contributions from members of the chair made a world of difference to my research into the perspectives of women and gender norms on agricultural practices. The feedback and ideas from their own knowledge of development and women's studies added considerable depth to my work.

All members of the Chair of Critical Development Studies, from faculty to research staff to other graduate students, played a role in fostering a climate of intellectual excitement and social warmth. Departmental seminars and collaborative working events served to facilitate the sharing of knowledge across different areas of research. Also, peer discussions among ATSAF scholars allowed them to share their perspectives from their disciplinary background, adding to my own knowledge of the complex relationships between issues of gender, agriculture, and sustainable development.

4. CHALLENGES ENCOUNTERED

Although the experience was generally positive, a few challenges affected the duration of my research stay-limiting it to five months instead of six. First, the university went on its semester break barely a month after I arrived in Passau, thus postponing the academic activities of the institution. This denied my participation in intellectual activities offered by the institution for some time, as the activities had effectively come to a standstill.

It is, however, worth noting that this particular challenge was neither the fault of the host institution, as this was a result of the delays that occurred in my visa processing procedure from Ghana, such that my intended travel date shifted from January 2025 to July 2025. The



University of Passau had actually suggested that I resume my study program at a time that was aligned with the active academic semester.

Notwithstanding the timing issue, my supervisory team remained available to me over the break, and I took advantage of the reduced activities schedule of the summer to conduct a detailed literature review, initial data analysis, and development of my thesis proposal. The fewer activities of this phase of my study, although a cause for initial concern, allowed me to immerse myself fully, without disruption, into my research topic, data, and relevant models of thought. When the academic term began, I was able to take full advantage of the interaction opportunities available to me. This is a good reminder of the importance of early visa processing for international research stays and, of course, the need for sufficient lead-time for preparing research visits to be optimally integrated into academic calendars.

A second challenge pertained to the methodological orientation of my research. The quantitative nature of my thesis, in which econometric modeling and statistical analysis are applied, is quite different from the largely qualitative research methods followed by members of the Chair of Critical Development Studies. The majority of the researchers in the chair were specialists in qualitative studies. This methodological difference made less in-depth technical discussions of my quantitative analyses, at least initially, and hampered the ease of communication with respect to specific techniques of analysis or model specifications.

However, this challenge was overcome through the proactive and collegial approach taken by my supervisors and other members of the chair. Realizing the limitations of their expertise in quantitative methods, they arranged for interactions with researchers from other departments, especially the Economics Department, where more quantitative work in agricultural economics was occurring. Such interdisciplinary referrals allowed me to access specialized methodological advice regarding econometric techniques and efficient discussions on particular statistical modelling approaches from researchers with appropriate technical skills.



6. RESEARCH SUMMARY: THESIS ABSTRACT

Using plot-level data from the SI-MFS baseline survey, the thesis focuses on how gender norms, resource access, and plot management arrangements shape the adoption and productivity outcomes of SIPs in Northern Ghana. A multivariate probit model, a Poisson regression model, and an Endogenous Switching Regression (ESR) framework were applied to analyze how gender norms affect adoption behavior and productivity outcomes between plots managed by husbands and wives.

The MVP results indicate that particular individual-level gender norms, which limit women's decision-making and access to key resources, significantly lower the likelihood of adopting some of the SIPs in question. While the gender of the plot manager itself is not statistically related to the intensity of SIP adoption, access to land, extension services, labour, and credit proves to be a very strong driver of adoption outcomes. Descriptive statistics highlight resource discrepancies for husband- and wife-managed plots, where wives are managing smaller plots and thus have limited access to organic inputs and labor.

The ESR analysis shows that the productivity outcome on wife-managed plots is lower compared to husband-managed plots, attributable to resource disparities. However, counterfactual estimates show that if women had the same resource endowments and conditions as men, their productivity would be comparable or even higher. This emphasizes that it is the structural and normative barriers that create the differences in productivity outcomes, rather than any factor related to innate gender differences.

The study concludes that gender norms and resource inequalities influence SIP adoption and productivity indirectly, other than the gender identity of the plot manager alone. Therefore, policy interventions to enhance SIP adoption and agricultural productivity in Northern Ghana should give priority to improving women's access to productive resources, challenging restrictive norms, and strengthening inclusive extension services.
